



Algorithms for Glycemic Management of Type 2 Diabetes

The Diabetes Care Algorithms for Type 2 Diabetes included within this document are taken from the American Association of Clinical Endocrinologists (AACE) Road Maps which can be found in the May/June issue of Endocrine Practice, Vol. 13, Issue 3, 2007, pages 262– 264 AND the American Diabetes Association's (ADA) Consensus Statement, *Management of Hyperglycemia in Type 2 Diabetes : A Consensus Algorithm for the Initiation and Adjustment of Therapy*, 2006 (Diabetes Care, Volume 29, Number 8, August 2006, p. 1963—1972).

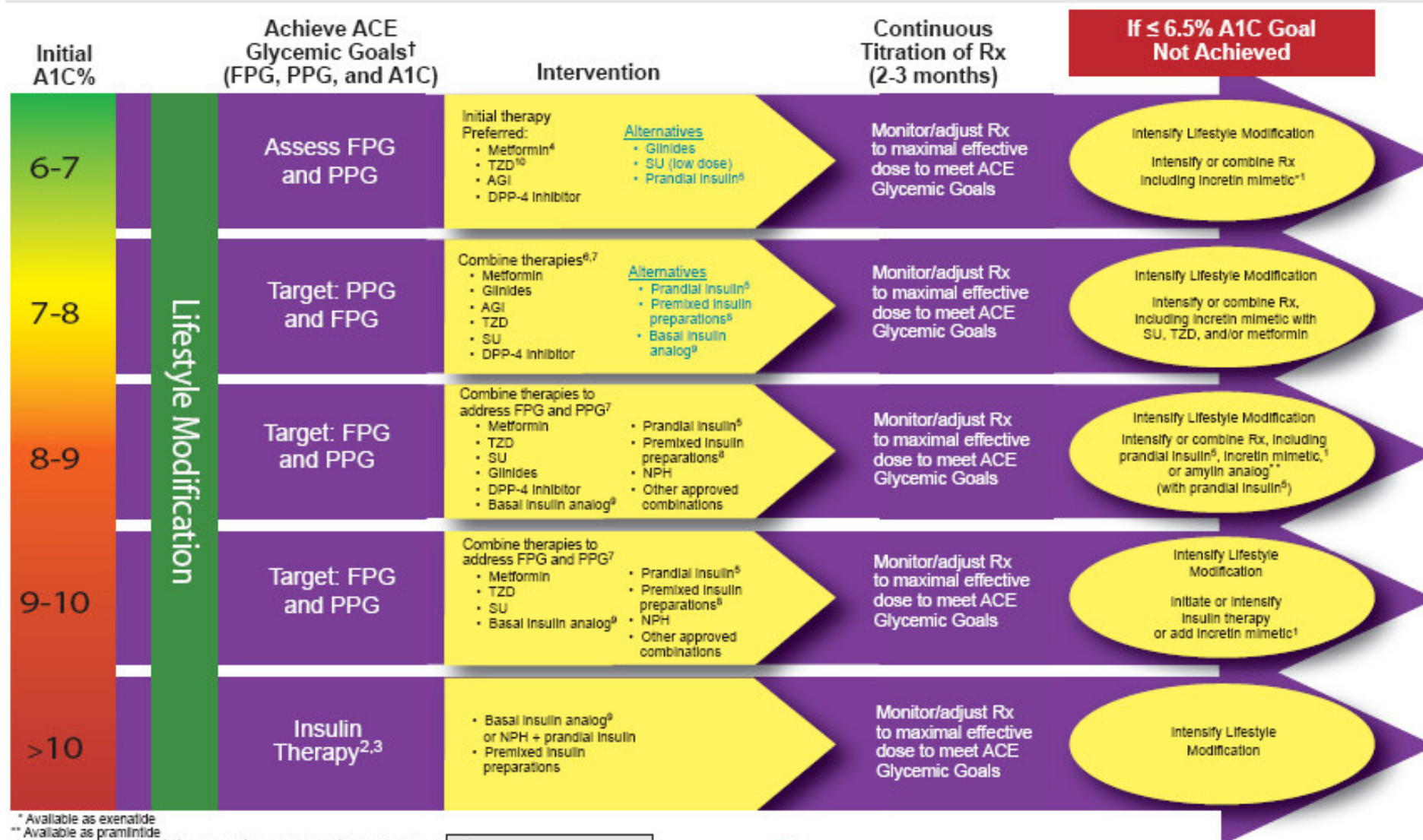
These algorithms serve as sample guides to assist diabetes practitioners in improving care associated with diabetes. The algorithms are not intended to replace or preclude clinical judgment or more intensive management. Use them as a quick reference to simplify diabetes treatments and as a way to improve care to patients with Type 2 diabetes.

An electronic version of this tool may be obtained from www.kentuckydiabetes.net.

Road Map to Achieve Glycemic Goals: Naïve to Therapy (Type 2)

Abbreviations in Road Maps:

AACE = American Association of Clinical Endocrinologists; A1C = hemoglobin A1c; ACE = American College of Endocrinology; AGI = α -glucosidase inhibitor; DPP-4 = dipeptidyl peptidase-4; FDA = US Food and Drug Administration; FPG = fasting plasma glucose; HDL = high-density lipoprotein; IFG = impaired fasting glucose; IGT = impaired glucose tolerance; MNT = medical nutrition therapy; OGTT = oral glucose tolerance test; PPG = postprandial glucose; Rx = treatment; SU = sulfonylurea; TZD = thiazolidinedione



* Available as exenatide

** Available as pramlintide

¹ Indicated for patients not at goal despite SU and/or metformin or TZD therapy; Incretin mimetic is not indicated for insulin-using patients

² For selected patients presenting with an A1C of $>10\%$, certain oral agent combinations may be effective

³ Insulin sensitizer may be combined with initial Insulin therapy

⁴ Preferred first agent in most patients

⁵ Rapid-acting insulin analog, Inhaled insulin, or regular insulin

⁶ Appropriate for most patients

⁷ 2 or more agents may be required

⁸ Analog preparations preferred

⁹ Available as glargine and detemir

¹⁰ A recent report (NEJM; 6/14/07) suggests a possible link of rosiglitazone to cardiovascular events that requires further evaluation

†ACE Glycemic Goals
 $\leq 6.5\%$ A1C
 < 110 mg/dL FPG
 < 110 mg/dL Preprandial
 < 140 mg/dL 2-hr PPG



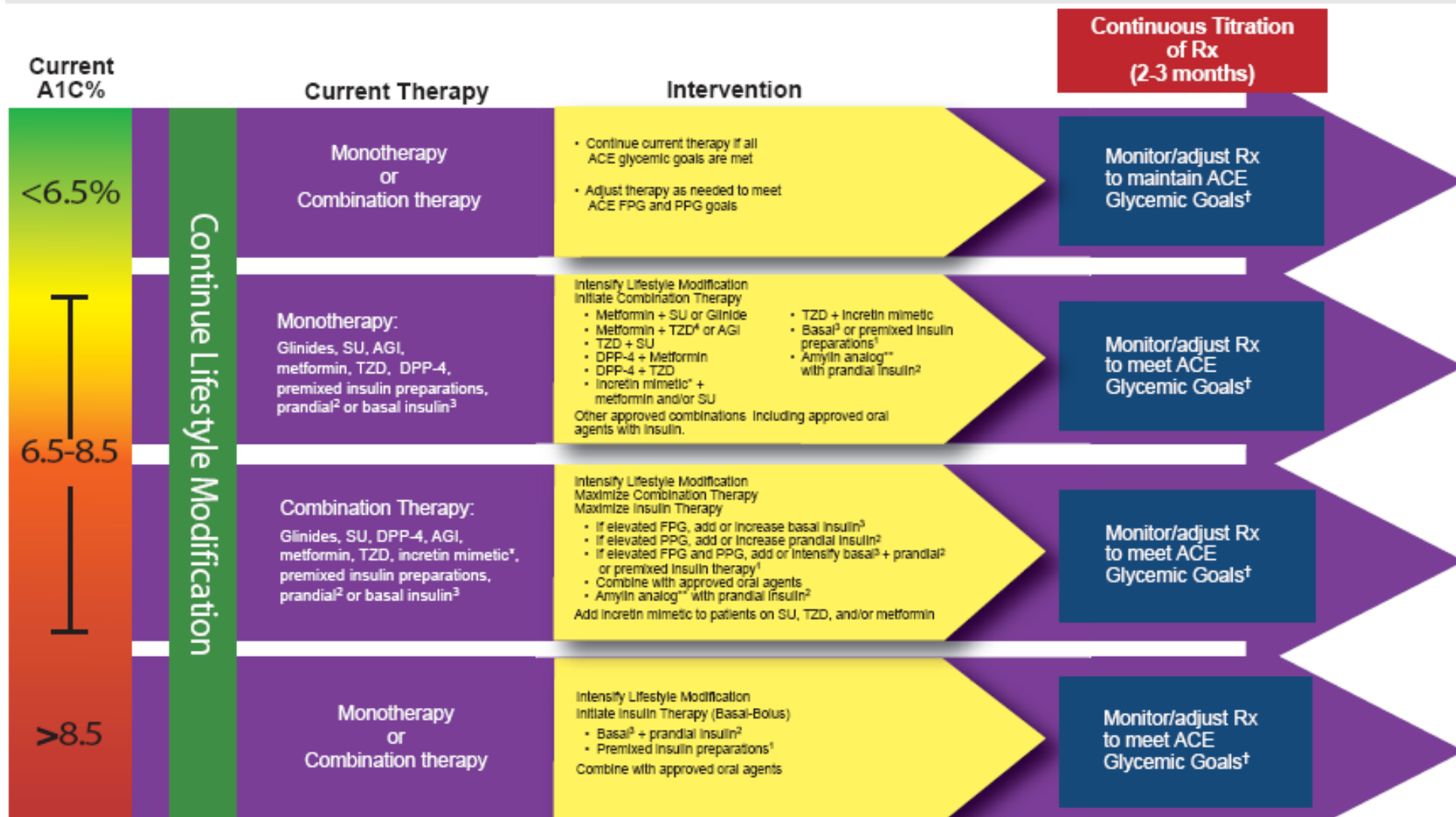
ACE/AACE Diabetes Road Map Task Force

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Road Map to Achieve Glycemic Goals: Treated Patients (Type 2)

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AACE = American Association of Clinical Endocrinologists; A1C = hemoglobin A1c; ACE = American College of Endocrinology; AGI = α -glucosidase inhibitor; DPP-4 = dipeptidyl peptidase-4; FDA = US Food and Drug Administration; FPG = fasting plasma glucose; HDL = high-density lipoprotein; IFG = impaired fasting glucose; IGT = impaired glucose tolerance; MNT = medical nutrition therapy; OGTT = oral glucose tolerance test; PPG = postprandial glucose; Rx = treatment; SU = sulfonylurea; TZD = thiazolidinedione



* Available as exenatide

** Available as pramlintide

¹ Analog preparations preferred

² Prandial insulin (rapid-acting insulin analog, inhaled insulin, or regular insulin) can be added to any therapeutic intervention at any time to address persistent postprandial hyperglycemia

³ Available as glargine and detemir

⁴ A recent report (NEJM; 6/14/07) suggests a possible link of rosiglitazone to cardiovascular events that requires further evaluation

†ACE Glycemic Goals
 $\leq 6.5\%$ A1C
 < 110 mg/dL FPG
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For full document information: American Diabetes Association
http://care.diabetesjournals.org/cgi/reprint/30/suppl_1/S4 and
<http://care.diabetesjournals.org/cgi/reprint/29/8/1963>

Management of Hyperglycemia in Type 2 Diabetes

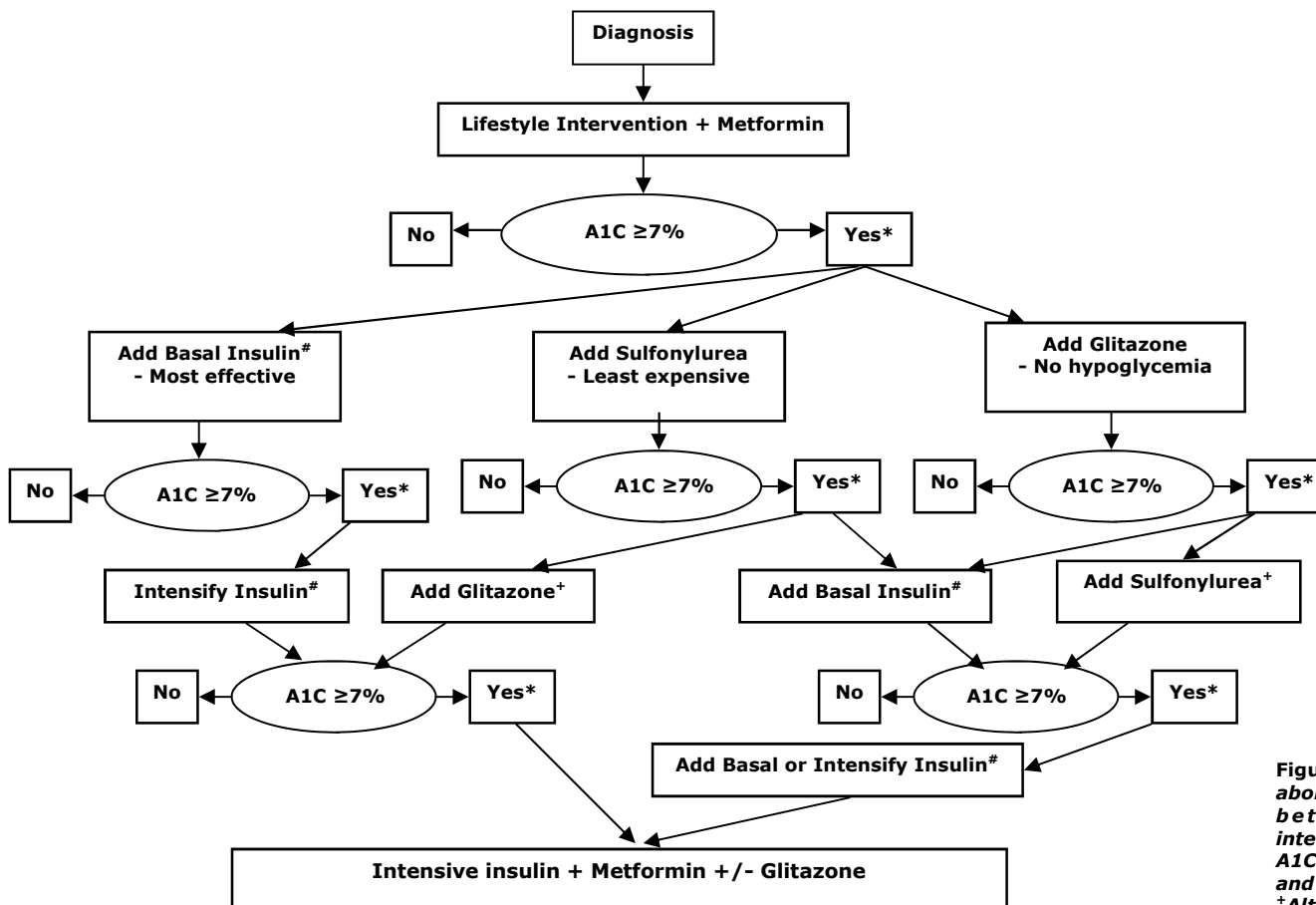


Figure 2—Algorithm for the metabolic management of type 2 diabetes. Reinforce lifestyle intervention at every visit. *Check A1C every 3 months until <7% and then at least every 6 months. +Although three oral agents can be used, initiation and intensification of insulin therapy is preferred based on effectiveness and expense. #See fig. 1 for initiation and adjustment of insulin.

Figure 1—Initiation and Adjustment of Insulin Regimens

Nathan and Associates

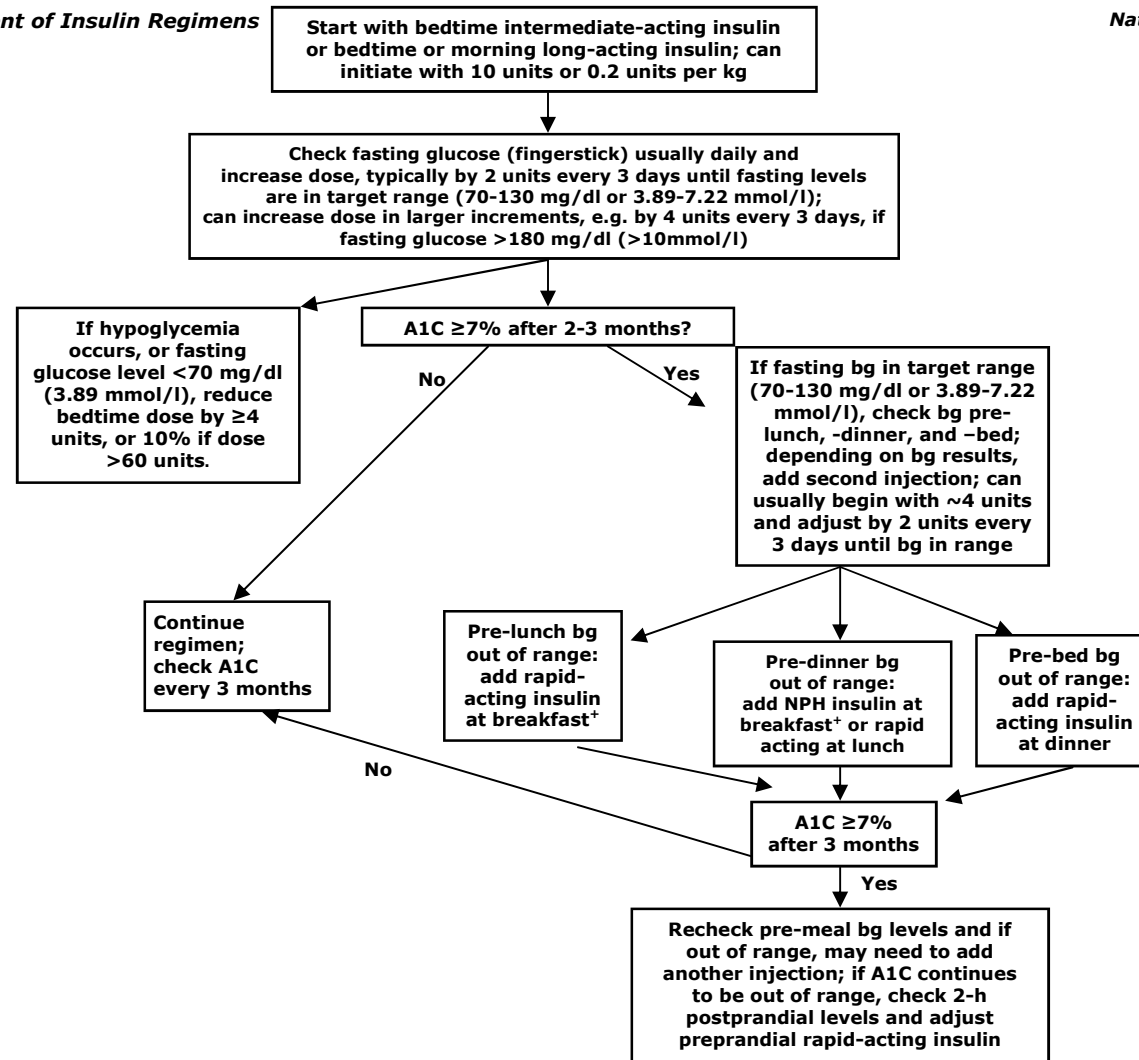


Figure 1—Initiation and adjustment of insulin regimens. Insulin regimens should be redesigned taking lifestyle and meal schedule into account. The algorithm can only provide basic guidelines for initiation and adjustment of insulin. See ref. 71 for more detailed instructions. *Premixed insulins are not recommended during adjustment of doses; however, they can be used conveniently, usually before breakfast and/or dinner if proportion of rapid- and intermediate-acting insulins is similar to the fixed proportions available. bg, blood glucose.